

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

- 5 1. (canceled)
2. (canceled)
3. (canceled)

4. (new) A turbocharger, comprising:

a housing defining a high-pressure side of a bladed wheel, a low pressure side of the wheel, and an opening configured to place the high pressure side of the wheel in fluid communication with the low pressure side of the wheel;

a valve member received in the opening, and being configured to regulate the fluid flow through the opening by moving between a closed position that fully obstructs the opening and an open position that does not fully obstruct the opening;

a retainer having a distal end received in the housing, and having a proximal end forming a threaded shaft; and

a coil spring having a proximal end attached to the valve member, a central portion forming a first set of coils, and a distal end forming a second set of coils, wherein the second set of coils are threadedly received on the threaded shaft of the retainer;

wherein the spring and retainer are configured to urge the valve member from the open position to the closed position; and

wherein the second set of coils are smaller in diameter than the first set of coils such that screwing the spring to adjust the position of the second set of coils on the shaft does not change the number of functionally active spring coils.

5. (new) The turbocharger compressor of claim 4, wherein the valve member includes a piston-like portion extending through the opening and a flange configured to abut a perimeter of the opening with the valve member in the closed position.

6. (new) The turbocharger compressor of claim 4, and further comprising a diaphragm, wherein:

with the valve member in the closed position, the diaphragm forms a channel around the valve member and in fluid communication with the high pressure side of the wheel; and

with the valve member in the open position, the diaphragm defines a portion of a passageway connecting the high pressure side of the wheel to the opening; and

the diaphragm and valve member are configured such that pressure from the high pressure side of the wheel urges the valve member from the closed position toward the open position.

7. (new) The turbocharger compressor of claim 6, and further comprising a cover, wherein:

the cover is sealed to the housing over the valve member and diaphragm such that the cover forms a chamber on the opposite side of the diaphragm from the channel;

the cover forms a chamber inlet configured for connection to a vacuum source; and

the diaphragm and valve member are configured such that the chamber is isolated from fluid communication with the channel, and such that a vacuum applied to the chamber via the chamber inlet urges the valve member from the closed position toward the open position.

8. (new) The turbocharger compressor of claim 4, wherein the retainer distal end is threadedly received in a threaded blind hole in the housing.

9. (new) The turbocharger compressor of claim 4, wherein the coil spring proximal end is threadedly received on the valve member.

10. (new) The turbocharger compressor of claim 4, wherein the coil spring proximal end is fixedly fitted on the valve member.

11. (new) The turbocharger compressor of claim 4, wherein the high-pressure side of the wheel is a compressor outlet and the low-pressure side
5 of the wheel is a compressor inlet.

12. (new) A valve assembly for use with a turbocharger compressor, the compressor including a housing defining a low pressure side of a bladed wheel, a high pressure side of the wheel, and an opening configured to place the low pressure side of the wheel in fluid communication with the
10 high pressure side of the wheel, comprising:

a valve member configured to be received in the opening, and being configured to regulate the fluid flow through the opening by moving between a closed position that fully obstructs the opening and an open position that does not fully obstruct the opening;

15 a retainer having a distal end configured to be received in the housing, and having a proximal end forming a threaded shaft; and

a coil spring having a proximal end attached to the valve member, a central portion forming a first set of coils, and a distal end forming a second set of coils, wherein the second set of coils are threadedly received on the
20 threaded shaft of the retainer;

wherein, with the valve member received in the opening and the retainer distal end received in the housing, the spring and retainer are configured to urge the valve member from the open position to the closed position; and

25 wherein the second set of coils are smaller in diameter than the first set of coils such that screwing the spring to adjust the position of the second set of coils on the shaft does not change the number of functionally active spring coils.

13. (new) The turbocharger compressor of claim 12, wherein the valve member includes a piston-like portion configured to extend through the opening and a flange configured to abut a perimeter of the opening with the valve member in the closed position.

- 5 14. (new) The valve assembly of claim 12, and further comprising a diaphragm and a cover, wherein with the valve member received in the opening and the retainer distal end received in the housing:

the diaphragm and cover are configured to be affixed to the housing such that the diaphragm forms a channel around the valve member and in
10 fluid communication with the high pressure side of the wheel, and such that the cover is sealed to the housing over the valve member and diaphragm with the cover forming a chamber on the opposite side of the diaphragm from the channel;

the cover forms a chamber inlet configured for placing the chamber in
15 fluid connection with a vacuum source;

with the valve member in the open position, the diaphragm defines a passageway connecting the high pressure side of the wheel to the opening;

the diaphragm and valve member are configured such that pressure from the high pressure side of the wheel urges the valve member from the
20 closed position toward the open position; and

the diaphragm and valve member are configured such that the chamber is isolated from fluid communication with the channel such that a vacuum applied to the chamber via the chamber inlet urges the valve member from the closed position toward the open position.

15. (new) The valve assembly of claim 12, wherein the retainer distal end is configured to be threadedly received in a threaded blind hole in the housing.

16. (new) The valve assembly of claim 12, wherein the coil spring
5 proximal end is threadedly received on the valve member.

17. (new) The valve assembly of claim 12, wherein the coil spring proximal end is fixedly fitted on the valve member.